

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	David E. Simmen	Examiner:	Cindy Nguyen
Serial No.:	To be Assigned	Group Art Unit:	2171
Filed:	March 24, 2004	Docket:	STL919990184US3
Title:	QUERY OPTIMIZATION TECHNIQUE FOR OBTAINING IMPROVED CARDINALITY ESTIMATES USING STATISTICS ON AUTOMATIC SUMMARY TABLES		

CERTIFICATE OF MAILING UNDER 37 CFR 1.10

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I hereby certify that this paper or fee is being deposited with the United States Postal Service 'Express Mail Post Office To Addressee' service under 37 CFR 1.10 and is addressed to: Commissioner for Patents, Washington, D.C. 20231.

By:

Name: Adriane M. Baird

INFORMATION DISCLOSURE STATEMENT(37 C.F.R. §1.97(b))

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted along with the filing of the above-identified application. Accordingly, no fee is due for consideration of the items listed on the enclosed Form 1449.

In accordance with 37 C.F.R. §1.98(a)(2), a copy of each document or other information listed on the enclosed Form 1449 is provided.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicant reserves the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that the reference(s) are not "prior art". Moreover, Applicant does not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.


Please direct any response or inquiry to the below-signed attorney at (310) 641-8797.

Respectfully submitted,

GATES & COOPER LLP  
Attorneys for Applicant(s)

Howard Hughes Center  
6701 Center Drive West, Suite 1050  
Los Angeles, California 90045  
(310) 641-8797

Date: March 24, 2004

By:   
Name: George H. Gates  
Reg. No.: 33,500

GHG/amb

<b>Form 1449*</b> <b>INFORMATION DISCLOSURE STATEMENT</b> <b>IN AN APPLICATION</b>	Docket Number: STL919990184US3	Application Number: To be Assigned
	Applicant: David E. Simmen	
	Filing Date: March 24, 2004	Group Art Unit: 2171

**U.S. PATENT DOCUMENTS - COPIES NOT REQUIRED**

EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,542,073	07/30/96	Schiefer et al.			
	5,761,653	06/02/98	Schiefer et al.			
	5,864,841	01/26/99	Agrawal et al.			
	5,899,986	05/04/99	Ziauddin			
	5,956,706	09/21/99	Carey et al.			
	5,960,428	09/28/99	Lindsay et al.			
	5,991,754	11/23/99	Raitto et al.			
	5,995,957	11/30/99	Beavin et al.			
	6,275,818 B1	08/14 /01	Subramanian et al.			
	6,477,523 B1	11/05/02	Chiang			

**FOREIGN PATENTS - COPY ENCLOSED**

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	EP 0875 838 A2	04/11/98	Europe				

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) - COPIES ENCLOSED**

		"Exploiting Statistics on Query Expressions for Optimization", Nicolas Bruno and Surajit Chadhuri, ACM SIGMOD, June 4-6 2002, Madison, WI, pp. 263-274.
		"Filter Factor Estimation for Non-numeric Datatypes", IBM Technical Disclosure Bulletin; Article 41575, November 1998, pp. 1505-1507.
		"Integrated Buffer Management and Query Optimization Strategy for Relational Databases", IBM Technical Disclosure Bulletin; Vol. 32, No. 12, May 1990 pp. 253-257.
		"Adaptive Path Selection for Query with Input Variables", IBM Technical Disclosure Bulletin; Vol. 32, No. 4A, September 1989, pp. 265-267.
		"Optimal Processor Allocation for Pipelined Hash Joins", IBM Technical Disclosure Bulletin; Vol. 37, No. 02A, February 1994, pp. 455-457.
		A. Swami et al., "On the Estimation of Join Result Sizes," Advances in Database Technology, EDBT '94, 4 <sup>th</sup> Int'l Conf on Extending Database Technology, March 28-31, 1994, pp. 287-300
		F. Najjar et al., "Cardinality Estimation of Distributed Join Queries," Tenth Int'l Workshop on Database and Expert Systems Applications, IEEE Computer Society, Sept. 1-3, 1999, 6 pgs.
		A. Segev et al., "Selectivity Estimation of Temporal Data Manipulations," Information Sciences, 1993, 74:111-149

EXAMINER:	DATE CONSIDERED:
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	

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	Applicant: David E. Simmen	
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		M.C. Chen et al, "Summary Data Estimation Using Decision Trees," Knowledge Discovery in Databases, University of California, pp. 309-323, published: Cambridge, MA, USA, 1991 Xii+525pp. Abstract.
		P. Ciaccia et al., "Domains and Active Domains: What This Distinction Implies for the Estimation of Projection Sizes in Relational Databases," IEEE Transactions on Knowledge and Data Engineering, Aug. 1995, 7(4):641-655
		B.J. Oommen et al., "Query Result Size Estimation Using a Novel Histogram-like Technique: The Rectangular Attribute Cardinality Map," 1999 International Database Engineering & Applications Symposium, pp. 3-15.
		Zhong, Wu et al., "An Algorithm for Optimization of Distributed Queries", Chinese Journal of Computers, Vol. 20, No. 11, pp. 1024-1033, Nov. 1997, Abstract.
		W-S. Cho et al., "A New Method for Estimating the Number of Objects Satisfying an Object-Oriented Query Involving Partial Participation of Classes," Information Systems, 1996, 21(3):253-267

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